

TECH TALK

Sherco 320 4T - Carburettor adjustment and alternatives

The Sherco 320 4T is a fantastic large capacity 4 stroke trials bike that when set up correctly is suitable for the Clubperson to the expert rider.

The Sherco 320 4T has seen a number of developments since its early days, in particular Sherco have paid attention to the carburettor. The 320 started out with a Dellorto 26mm roundslide, then a Keihin 28mm flatslide, and the latest model also has the SPS system fitted. All of the developments have substantially improved the carburation.

However, like most trials bikes, the overall fuel/air mixture settings tend to be somewhat rich from the factory and being such a large capacity 4 stroke, the bike can be easily flooded after falling off. What can be done about this?

With regard to the rich factory settings, this is done to protect the engine components during the critical "running in" period. Once the engine has performed about 30hrs of work, it is sometimes necessary to adjust carburettor settings to achieve improved ride-ability and starting. This article is produced as a guide to make a simple adjustment that often will cure hard starting issues, and clean up throttle response. It is assumed that owners will have already performed a plug chop and other basic checks before adjusting the carburettor (see your user manual).

Once it is determined the carburettor requires adjustment, follow the below steps:

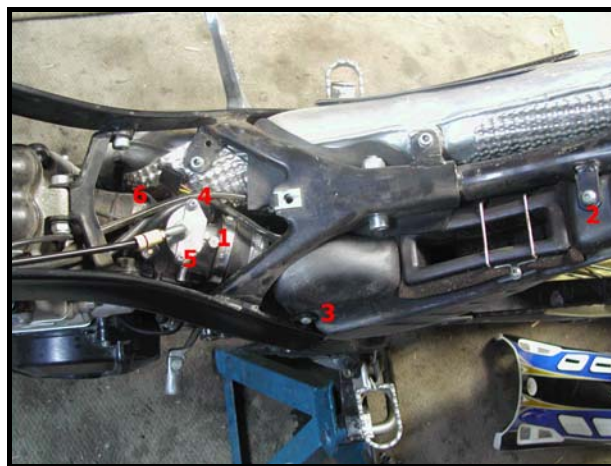
1. Remove rear guard screws 1 to 3.



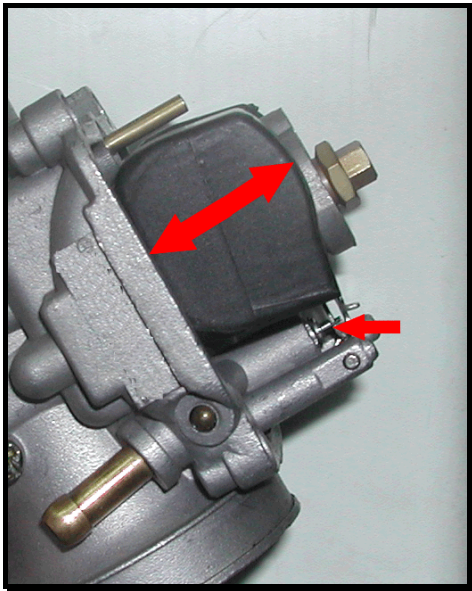
2. With fuel petcock on the 'ON' position, raise fuel tank at rear, turn petcock to off (as shown in image) and very gently pry off fuel delivery line from petcock. Be very gentle when doing this as the petcock mounting is easily disturbed.



3. Remove/loosen bolts/clamp 1 to 3 and remove airbox. Remove throttle tower screws 4 and 5 and remove throttle cable and slide and place to one side.



4. Loosen clamp 6 and remove carburettor up and out.



5. Remove float bowl and hold carburettor upside down at about 45-60 degrees so that the needle pin is just starting to compress with the weight of the floats. Take a measurement of the distance between the planes from the top of the float to the gasket sealing area of the carburettor body. This measurement is your reference point for further adjustment. Adjust the float tang so that your measurement increases by as little as 0.3mm and no more than 0.5mm. Reassemble carburettor and install all components. Test ride bike. After this adjustment you may find the mixture screw will need adjusting slightly to compensate.

It is up to you to play with this float height setting until you find the 'sweet spot'. It will be different for every bike and therefore we can't provide you with a fixed setting. It may only require and adjustment of 0.1mm or the full 0.5mm. Patience and perseverance will pay off, and you will find that even the smallest of adjustment can make such a huge difference. Always monitor the colour of the spark plug to determine the air/fuel ratio.

Alternatives

The carburettor fitted to the majority of Sherco 320 4T is quite sensitive and we at TRIALTECH have been experimenting with the OKO range of flatslide carburettors as an alternative and have determined that the best alternative for

the Sherco 4T is the fitment of a 24mm OKO flatslide. This is also a good upgrade alternative for those early 4T models fitted with Dellorto 26mm roundslide. Why install a smaller carburettor? The smaller bore size helps to eliminate some of the issues the 28mm carburettor is known for e.g. the bike in standard trim is easily flooded, can be somewhat of a handful for less experienced riders etc. If after performing the above adjustments, you have tried various jetting settings etc and you still think you would like to tame the motor a little, consider contacting TRIALTECH for supply of a 24mm OKO flatslide. We sell these pre-jetted and ready to fit straight on. Also sell an upgrade kit for the earlier model 4T. The below image shows the difference in the bore dimensions of a 28mm vs a 26mm.



If you have any questions don't hesitate to call TRIALTECH.

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